



Does Your Business Generate Hazardous Wastes?

Hazardous Waste Program fact sheet

6/2006

This fact sheet provides general information to help businesses determine whether they generate hazardous wastes. It is for general guidance only and is not intended for use by interim status or permitted hazardous waste treatment, storage or disposal facilities. For complete information on the proper management of hazardous waste, readers should consult the appropriate federal and state law and regulations.

What is a Hazardous Waste?

A waste is a solid, gas or liquid material that is no longer used and will be discarded. The U.S. Environmental Protection Agency (EPA) and Missouri's Hazardous Waste Management Law define waste as hazardous if it has certain properties that could pose dangers to human health and the environment.

In 1976 the Congress of the United States passed a law called the Resource Conservation and Recovery Act (RCRA). Under RCRA, the EPA developed regulations for handling hazardous waste in ways that protect human health and the environment from the moment it is generated until its ultimate disposal. Missouri has adopted most of the federal regulations and made some amendments.

A waste is hazardous waste if it has certain characteristics (ignitability, corrosivity, reactivity, or toxicity) or if it is on a list of specific wastes determined to be hazardous. The types of hazardous wastes are discussed in the section called "Identifying Your Wastes".

Regulatory Citations

Throughout this document you will see citations such as "40 CFR 262." This refers to the specific section of the law or regulations dealing with the topic being discussed. The federal hazardous waste regulations are in the Code of Federal Regulations, Title 40, Part 260 through Part 280 (40 CFR 260-280). The Missouri Hazardous Waste Law is in the Revised Statutes of Missouri (RSMo), Sections 260.350-260.575. The hazardous waste rules are in the Code of State Regulations, Title 10, Division 25 (10 CSR 25).

Some businesses that commonly produce hazardous waste

It is impossible to list every type of business that generates hazardous waste. The following are some activities and businesses which may generate hazardous waste.

Your business is likely to produce hazardous waste if you

- Use petroleum products
- Use dyes, paints, printing inks, thinners, solvents, or cleaning fluids
- Use pesticides or other related chemicals
- Use materials that dissolve metals, wood, paper, or clothing (acids and caustics)

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- Use flammable materials
- Use materials that burn or itch upon contact with skin
- Use materials that bubble or fume upon contact with water
- Receive delivery of products with a shipping paper or label showing that the product is hazardous
- Use lubricating motor oils

Such businesses might include those that:

- Repair and maintain motor vehicles
- Do electroplating and other metal manufacturing and fabrication
- Operate printing equipment
- Do dry cleaning and laundering
- Do photographic processing and printing
- Operate laboratories
- Do building, road, and other construction
- Provide home or industrial pest control
- Manufacture or process chemicals
- Manufacture or formulate pesticides
- Paint
- Manufacture paint or paint-related products
- Manufacture textiles (including fabric, dyeing and finishing)
- Make or refinish furniture
- Manufacture or process cosmetics
- Chemically treat lawns, yards, or gardens
- Preserve wood
- Manufacture paper and paper products

Identifying your wastes

It is your responsibility to determine if your waste is hazardous. Wastes are considered hazardous if:

- The name of the substance is on any of the hazardous waste lists in 40 CFR 261 Subpart D and it meets the listing definition.
- The waste exhibits any one of the four characteristics of a hazardous waste in 40 CFR 261 Subpart C (ignitable, reactive, corrosive or toxic); or
- The waste is identified as a hazardous waste by Missouri regulations.

Listed Hazardous Wastes

Listed hazardous wastes appear on one of the lists in the federal regulation - the F list, K list, P list and U list.

F List - Contains hazardous wastes from non-specific sources. The wastes may come from various industrial processes. The list includes solvents used in degreasing, metal treatment baths and sludges, wastewaters from metal plating operations and dioxin-containing chemicals or their precursors. (See 40 CFR 261.31)

K List - Contains hazardous wastes generated by specific industrial processes. Examples of industries that may generate K-listed wastes are wood preservation, petroleum refining, explosives manufacturing, production of pigment, chemicals, or pesticides, and iron and steel production. (See 40 CFR 261.32.)

U List - Contains discarded commercial chemical products, off-specification chemicals, container residues, and residues from spills of these materials. It includes commercially pure grades of the chemical, technical grades of the chemical that are produced or marketed, and formulations in which the chemical is the only active ingredient. For example, excess pesticide listed on the U list would be a hazardous waste when it is discarded. [See 40 CFR 261.33(f).]

P List - Also contains discarded commercial chemical products, off-specification chemicals, container residues, and residues from spills of these materials. However, P-listed wastes are extremely toxic and/or reactive, so the requirements for managing these wastes are more strict than for other hazardous wastes. P-listed wastes are acutely hazardous wastes. [See 40 CFR 261.33(e).]

Characteristic Hazardous Waste

Some wastes that are not found on the lists may still be regulated hazardous wastes because they have characteristics that make them hazardous. The four characteristics are described here:

Ignitable - A liquid with a flashpoint of less than 140 degrees F., or solids that catch fire easily and burn so rapidly they create a hazard. Examples of wastes that may be ignitable are solvents, degreasers, lacquer thinners, epoxy resins, adhesives, oil based paints, paint sludges and magnesium dust. (See 40 CFR 261.21.)

Corrosive - A liquid with a pH less than or equal to 2.0 or a pH greater than or equal to 12.5. Corrosives will eat away a standard metal container. Examples of corrosives include strong acids and bases (caustics), battery acids, paint removers and industrial degreasing solutions. (See 40 CFR 261.22.)

Reactive - Wastes that are normally unstable, react violently with water, can explode or release poisonous gases. Examples of reactive wastes are gunpowders, sodium metal, red/yellow phosphorus and wastes containing cyanides or sulfides. (See 40 CFR 261.23)

Toxic - Wastes that are harmful or fatal when ingested or absorbed. When disposed on land, contaminants may leach from the waste and pollute groundwater. Toxicity is identified through a laboratory procedure called the Toxicity Characteristic Leaching Procedure (TCLP). Toxic wastes exceed certain regulatory levels of volatile organic chemicals, heavy metals or pesticides when tested by the TCLP. Some toxic heavy metals are lead, cadmium, silver, chromium and mercury. Endrin, lindane, and 2,4-D are some of the pesticides named. Examples of volatile organics include benzene, chloroform, vinyl chloride and trichloroethylene. (See 40 CFR 261.24)

The requirements for managing hazardous waste vary depending on the type of waste. Wastes that are extremely toxic or reactive, such as P-listed wastes, are called acutely hazardous wastes. All P-listed wastes and some dioxin wastes are acutely hazardous wastes. Acutely hazardous wastes are regulated at smaller quantities than other wastes. Hazardous wastes which are not acutely hazardous are non-acute hazardous wastes.

To determine whether your waste is hazardous, check to see if it is on the lists of hazardous wastes or if it is a hazardous waste in Missouri. If it is not, you must find out if it exhibits one or more of the hazardous characteristics. You often can tell if your waste is hazardous by looking at label information. If the label uses terms like "flammable" or "poison," it might be a hazardous waste. Talk with your material supplier or your trade association for more help, or refer to material safety data sheets. You will also need to consider whether the waste picks up other potentially hazardous constituents through use, such as metal shavings in a cleaning solvent. If you are unsure if your waste is hazardous, you may have it tested in a laboratory.

What type of generator are you?

If your business generates hazardous waste, you must comply with the appropriate laws and regulations. The laws and regulations that apply to you depend on the amount and type of waste generated. You need to know what waste you generate and whether it is an acute or non-acute hazardous waste. You also need to know how much hazardous waste you generate each month and accumulate at any one time. Hazardous waste generator requirements can be found at 10 CSR 25-5.262. If you generate regulated quantities of hazardous waste and are required to register as a hazardous waste generator, contact the Environmental Services Program for a copy of the Notification of Regulated Waste Activity form, or access it online at www.dnr.mo.gov/forms/780-1164.pdf

There are three types of generators - Large Quantity Generator (LQG), Small Quantity Generators (SQG), and Conditionally Exempt Small Quantity Generators (CESQG). The following general guidelines can help you determine your generator status. Contact the department for more specific information.

If you generate in one month or accumulate at any one time

- more than 1 kg (2.2 pounds) of acutely hazardous waste, you are a LQG.
- 1,000 kg (2,200 pounds) or more of non-acute hazardous waste, you are a LQG
- more than 100 kg (about 220 pounds), but less than 1000 kg (2,200 pounds) of non-acute hazardous waste AND less than 1 kg of acutely hazardous waste you are a SQG.
- no more than 100 kg (220 pounds) of non-acute hazardous waste and less than 1 kg of acutely hazardous waste you are a CESQG.

Note: In Missouri, anyone generating 1 gram or more of dioxin waste (2,3,7,8-tetrachlorodibenzo-p-dioxin) is a LQG.

Managing Hazardous Waste

All hazardous wastes must be managed according to applicable laws and regulations. For information on proper storage, transport, disposal and recycling of hazardous waste, contact the program or office listed at the end of this fact sheet.

The Universal Waste Rule

The Universal Waste Rule became effective in Missouri as of Jan. 31, 1999. If you choose to do so, you may manage your hazardous waste batteries, pesticides, mercury-containing thermostats, mercury switches, mercury-containing thermometers and manometers and mercury-containing (fluorescent) lamps according to these regulations. The requirements of these regulations are generally less stringent than the existing hazardous waste regulations. For more information you may refer to the Universal Waste Rule Fact Sheet available from the Environmental Services Program or online at www.dnr.mo.gov/pubs/pub117.pdf

How Do I Obtain Copies of Hazardous Waste Laws and Regulations?

Copies of the Revised Statutes of Missouri are available through the Revisor of Statutes at (573) 526-1288, or are available on line at www.moga.state.mo.us. Copies of the Missouri Code of State Regulations are available through the Missouri Secretary of State at (573) 751-4015, or are available online at www.sos.missouri.gov/adrules/csr/csr.asp. Federal regulations may be viewed at federal depository libraries or may be purchased from a U.S. Government Bookstore, the U.S. Government Printing Office or from a commercial information service such as the Bureau of National Affairs. Federal Regulations are also available on line at www.access.gpo.gov/nara/cfr/index.html.

For more information call or write:

Missouri Department of Natural Resources

Hazardous Waste Program

P.O. Box 176, Jefferson City, MO 65102-0176

1-800-361-4827 or (573) 751-3176 office

(573) 751-7869 fax

www.dnr.mo.gov/env/hwp Program Home Page